LITERATURE CITED

- Abell, R., and M. Wilson 1994. San Juan River Basin water quality and contaminants review. Museum of Southwestern Biology, Department of Biology, University of New Mexico and New Mexico Ecological Services, U.S. Fish and Wildlife Service for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1993, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Andrews, A.K. 1970. Squamation chronology of the fathead minnow, *Pimephales promelas*. Transactions American Fisheries Society 99:429-432.
- Andrews, E.D. 1980. Effective and bankfull discharges of streams in the Yampa River Basin, Colorado and Wyoming. Journal of Hydrology 46:311-330.
- Andrews, E.D. 1994. Marginal bed load transport in a gravel bed stream, Sagehen Creek, California. Water Resources Research 30:2241-2250.
- Andrews, A.K., and S.A. Flickinger. 1974. Spawning requirements and characteristics of the fathead minnow. Proceedings. Southeastern Association. Game and Fish Commissioners 27:759-766.
- Angradi, T.R., J.S. Spaulding, and E.D. Koch. 1991. Diel food utilization by the Virgin River spinedace, *Lepidomeda mollispinis mollispinis*, and speckled dace, *Rhinichthys osculus*, in Beaver Dam Wash, Utah. Southwestern Naturalist 36:158-170.
- Archer, E. 1997. Trip report for experimental stocking trip #4, San Juan River age-0 Colorado squawfish studies 1997. Utah Division of Wildlife Resources, Salt Lake City.
- Archer, E., T. Chart, T. Crowl, and L. Lentsch. 1995. Early life history fisheries survey of the San Juan River, New Mexico and Utah, 1994. Utah Division of Wildlife Resources for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1994, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Archer, E., T. Chart, L. Lentsch, and T. Crowl. 1996. Early life history fisheries survey of the San Juan River, New Mexico and Utah, 1995. Utah Division of Wildlife Resources for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1995, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Archer, D.L., and H.M. Tyus. 1984. Colorado squawfish spawning study, Yampa River. Colorado River Fishery Project, U.S. Fish and Wildlife Service, Final Report, Salt Lake City.

- Armstrong, M.L., and A.V. Brown. 1983. Diel drift and feeding of channel catfish alevins in the Illinois River, Arkansas. Transactions American Fisheries Society 112:302-307.
- Barber, W.E., and W.L. Minckley. 1966. Fishes of Aravaipa Creek, Graham and Pinal counties, Arizona. Southwestern Naturalist 11:313-324.
- Beamsderfer, R.C., and J.L. Congleton. 1982. Spawning behavior, habitat selection, and early life history of northern squawfish, with inferences to Colorado squawfish. Pages 27-110 *in* W.H. Miller, J.J. Valentine, D.L. Archer, H.M. Tyus, R.A. Valdez, and L.R. Kaeding, editors. Part 3, Colorado River Fishery Project. U.S. Bureau of Reclamation for U.S. Fish and Wildlife Service, Final Report Contracted Studies, Salt Lake City.
- Becker, G.C. 1983. Fishes of Wisconsin. University of Wisconsin Press, Madison.
- Benoit, D.A., and R.W. Carlson. 1977. Spawning success of fathead minnows on selected artificial substrates. Progressive Fish-Culturist 39:67-69.
- Bestgen, K.R. 1990. Status review of the razorback sucker, *Xyrauchen texanus*. Larval Fish Laboratory, Colorado State University, Contribution 44, Fort Collins.
- Bestgen, K.R. 1996. Growth, survival and starvation resistance of Colorado squawfish larvae. Environmental Biology of Fishes 46:197-209.
- Bestgen, K.R., R.T. Muth, and M.A. Trammell. 1998. Downstream transport of Colorado squawfish larvae in the Green River drainage: temporal and spatial variation in abundance and relationships with juvenile recruitment. Colorado River Recovery Implementation Program, U.S. Fisheries and Wildlife Service, Project Number 32, Final Report, Denver.
- Bliesner, R., and V. Lamarra. 1993. San Juan River habitat studies. Keller-Bliesner Engineering and Ecosystems Research Institute for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, 1992 Annual Report, Albuquerque, New Mexico.
- Bliesner, R., and V. Lamarra. 1994. San Juan River habitat studies, 1993 Annual Report. Keller-Bliesner Engineering and Ecosystems Research Institute for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1993, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Bliesner, R., and V. Lamarra. 1995. San Juan River habitat studies, 1994 Annual Report. Keller-Bliesner Engineering and Ecosystems Research Institute for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1994, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.

- Bliesner, R., and V. Lamarra. 1996. San Juan River habitat studies,1995 Annual Report. Keller-Bliesner Engineering and Ecosystems Research Institute for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Annual Research Report, Fiscal Year 1995, Albuquerque, New Mexico.
- Bozek, M.A., L.J. Paulson, and J.E. Deacon. 1984. Factors affecting reproductive success of bonytail chubs and razorback suckers in Lake Mohave. U.S. Bureau of Reclamation, Final Report 14-16-0002-81-251 Technical Report Number 12, Boulder City, Nevada.
- Brandenburg, W.H., and K.B. Gido. In Press. Nonnative predation on native ichthyofauna in the San Juan River, New Mexico and Utah. Southwestern Naturalist 0:00
- Brooks, J.E. 1986. Annual reintroduction and monitoring report for razorback sucker *Xyrauchen texanus*, in the Gila River Basin, Arizona, 1985. Arizona Game and Fish Department for U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Brooks, J.E., C.M. Williams, and C. Hoagstrom. 1994. San Juan River investigations of nonnative fish species, 1993 Annual Report. New Mexico Fisher Resources Office, U.S. Fish and Wildlife Service for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Brues, C.T. 1928. Studies on the fauna of hot springs in the western United States and the biology of thermophilous animals. Proceedings. American Academy of Arts and Sciences 100:659-664.
- Bryan, K. 1925. Data of channel trenching (arroyo cutting) in the arid Southwest. Science 62:338-344.
- Bulkley, R.V., and R. Pimentel. 1983. Temperature preference and avoidance by adult razorback suckers. Transactions American Fisheries Society 112:601-607.
- Buntjer, M.J., and J.E. Brooks. 1996. San Juan River investigations of nonnative fish species, 1995. Annual Report. New Mexico Fisher Resources Office, U.S. Fish and Wildlife Service, San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1995, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Buntjer, M., T. Chart, and L. Lentsch. 1993. Early life history fisheries survey of the San Juan River, New Mexico and Utah, 1992. Utah Division of Wildlife Resources for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.

- Buntjer, M., T. Chart, and L. Lentsch. 1994. Early life history fisheries survey of the San Juan River, New Mexico and Utah, 1993. Utah Division of Wildlife Resources for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1993, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Burke, T. 1995. Rearing wild razorback sucker larvae in lake-side backwaters, Lake Mohave, Arizona/Nevada. Proceedings of the Desert Fishes Council, 1994 Annual Symposium 26:35-36 (abstract only).
- Burrage, B.R. 1961. Notes on some captive minnows, *Pimephales promelas* Rafinesque. Transactions Kansas Academy of Science 64:357-359.
- Carlander, K.D. 1969. Handbook of freshwater fishery biology, Vol. 1. The Iowa State University Press, Ames.
- Carlson, D.R. 1967. Fathead minnow, *Pimephales promelas* Rafinesque, in the Des Moines River, Boone County, Iowa, and the Skunk River drainage, Hamilton and Story counties, Iowa. Iowa State Journal of Science 41:363-374.
- Carter, J.G., V.A. Lamarra, and R.J. Ryel. 1986. Drift of larval fishes in the upper Colorado River. Journal of Freshwater Ecology 3:567-577.
- Chadwick, E.M.P. 1976. Ecological fish production in a small Precambrian shield lake. Environmental Biology of Fishes 1:13-60.
- Conklin, D.J., Jr, S.P. Canton, J.W. Chadwick, W.J. Miller. 1995. Habitat suitability curves for selected fish species in the Central Platte River, Nebraska. Rivers 5:250-266.
- Cooper, E.L., editor. 1987. Carp in North America. American Fisheries Society, Bethesda, Maryland.
- Coyle, E.E. 1930. The algal food of *Pimephales promelas* (fathead minnow). Ohio Journal of Science 30:23-35.
- Cross, F.B. 1967. Handbook of fishes of Kansas. University of Kansas. Museum of Natural History, Miscellaneous Publication 45, Lawrence.
- Cross, F.B., and R.E. Moss. 1987. Historic changes in fish communities and aquatic habitats in plains streams of Kansas. Pages 155-165 *in* W.J. Matthews and D.C. Heins, editors. Community and evolutionary ecology of North American stream fishes. University of Oklahoma Press, Norman.

- Deacon, J.E., P.B. Schumann, and E.L. Stuenkel. 1987. Thermal tolerances and preferences of fishes of the Virgin River system (Utah, Arizona, and Nevada). Great Basin Naturalist 47:538-546.
- Dill, W.A. 1944. The fishery of the lower Colorado River. California Fish and Game 30:109-211.
- Diplas, P. 1994. Modeling of fine and course sediment interaction over alternate bars. Journal of Hydrology 159:335-351.
- Douglas, M.E., P.C. Marsh, and W.L. Minckley. 1994. Indigenous fishes of western North America and the hypothesis of competitive displacement: *Meda fulgida* (Cyprinidae) as a case study. Copeia 1994:9-19.
- Farnworth, E.G., M.C. Nichols, C.N. Vann, L.G. Wolfson, R.W. Bosserman, P.R. Hendrix, F.B. Golly, and J.L. Cooley. 1979. Impacts of sediment and nutrients on biota in surface waters of the United States. EPA-600/3-79-105.
- Farringer, R.T., A.A. Echelle, and S.F. Lehtinen. 1979. Reproductive cycle of the red shiner, *Notropis lutrensis*, in central Texas and south central Oklahoma. Transactions American Fisheries Society 108:271-276.
- Fish, M.P. 1932. Contributions to the early life histories of 62 species of fish from Lake Erie and its tributary waters. Bulletin. U.S. Bureau of Fisheries 47:293-398.
- FLO (FLO Engineering, Inc.). 1996. Green River flooded bottomlands investigation, Ouray National Wildlife Refuge and Canyonlands National Park, Utah. Recovery Program for the Endangered Fishes of the Upper Colorado River, U.S. Fish and Wildlife Service, Denver.
- Fuiman, L.A., J.V. Conner, B.F. Lathrop, G.L. Buynak, D.E. Snyder, and J.J. Loos. 1983. State of the art of identification for cyprinid fish larvae from Eastern North America. Transactions American Fisheries Society 112:319-332.
- Gale, W.F. 1986. Indeterminate fecundity and spawning behavior of captive red shiner—fractional, crevice spawners. Transactions American Fisheries Society 115:429-437.
- Gale, W.F., and G.L. Buynak. 1982. Fecundity and spawning frequency of the fathead minnow—a fractional spawner. Transactions American Fisheries Society 111:35-40.
- Gale, W.F., and H.W. Mohr, Jr. 1978. Larval fish drift in a large river with a comparison of sampling methods. Transactions American Fisheries Society 107:39-57.

- Gellis, A., R. Hereford, S.A. Schumm, and B.R. Hayes. 1991. Channel evolution and hydrologic variations in the Colorado River Basin: Factors influencing sediment and salt loads. Journal of Hydrology 124:317-344.
- Gido, K.B., and D.L. Propst. 1994. San Juan River secondary channel community studies, permanent study sites, 1993 Annual Report. U.S. Fish and Wildlife Service for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1993, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Gido, K.B., and D.L. Propst. In press. Habitat use and association of native and nonnative fish in the San Juan River, New Mexico and Utah. Copeia 1998:00-00.
- Gido, K.B., D.L. Propst, and M.C. Molles. 1997. Spatial and temporal variation of fish communities in secondary channels of the San Juan River, New Mexico and Utah. Environmental Biology of Fishes 49:417-434.
- Grabowski, S.J., and S.D. Hiebert. 1989. Some aspects of trophic interactions in selected backwaters and the main channel of the Green River, Utah 1987-1988. Research and Laboratory Services Division, U.S. Bureau of Reclamation, Special Report, Denver.
- Graf, W.L. 1987. Late Holocene sediment storage in canyons of the Colorado Plateau. Geological Society of America Bulletin 99:261-271.
- Greger, P.D., and J.E. Deacon. 1988. Food partitioning among fishes of the Virgin River. Copeia 1988:314-323.
- Gutermuth, F.B., L.D. Lentsch, and K.R. Bestgen. 1994. Collection of age-0 razorback suckers (*Xyrauchen texanus*) in the lower Green River, Utah. Southwestern Naturalist 39:389-391.
- Haines, G.B., and H.M. Tyus. 1990. Influence of environmental factors on distribution and abundance of age-0 Colorado squawfish in the Green River, Utah. U.S. Fish and Wildlife Service for Colorado River Fishery Project, Vernal, Utah.
- Hale, M.C. 1963. A comparative study of the food of the shiners *Notropis lutrensis* and *Notropis venustus*. Journal of Oklahoma Academy of Science 43:125-129.
- Hamilton, S.J., and K.J. Buhl. 1995. Hazard assessment of inorganics, singly and in mixtures, to Colorado squawfish and razorback sucker in the San Juan River, New Mexico. San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1994, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.

- Hamilton, S.J., and K.J. Buhl. 1996. Hazard assessment of inorganics, singly and in mixtures, to Colorado squawfish and razorback sucker in the San Juan River, New Mexico. National Biological Service for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1995, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Hamilton S.J., and K.J. Buhl. 1997. Hazard assessment of inorganics, individually and in mixtures, to two endangered fish in the San Juan River, New Mexico. Environmental Toxicology and Water Quality 12:195-209.
- Hamman, R.L. 1981. Spawning and culture of Colorado squawfish in raceways. Progressive Fish-Culturist 43:173-177.
- Hamman, R.L. 1985. Induced spawning of hatchery-reared razorback sucker. Progressive Fish-Culturist 47:187-189.
- Harvey, M.D., R.A. Mussetter, and E.J. Wick. 1993. A physical process-biological response model for spawning habitat formation for the endangered Colorado squawfish. Rivers 4:114-131.
- Hasler, A.D., H.P. Thomsen, and J. Neess. 1946. Facts and comments on raising two common bait minnows. Wisconsin. Department of Natural Resources. Bulletin. 210-A-46, Madison.
- Hawkins, J.A. 1991. Age and growth of Colorado squawfish from the Upper Colorado River Basin, 1978-1990. Colorado State University, Fort Collins.
- Haynes, C.M., T.A. Lytle, E.J. Wick, and R.T. Muth. 1984. Larval Colorado squawfish (*Ptychocheilus lucius*) in the Upper Colorado River Basin, Colorado, 1979-1981. Southwestern Naturalist 29:21-33.
- Held, J.W., and J.J. Peterka. 1974. Age, growth, and food habits of the fathead minnow, *Pimephales promelas*, in North Dakota saline lakes. Transactions American Fisheries Society 103:743-756.
- Heufelder, G.R., and L.A. Fuiman. 1982. Family Cyprinidae, carps and minnows. Pages 174-344 *in* N.A. Auer, editor. Identification of larval fishes of the Great Lakes Basin with emphasis on the Lake Michigan Drainage. Great Lakes Fishery Commission, Special Publication 82-83, Ann Arbor, Michigan.
- Holden, P.B. 1973. Distribution, abundance, and life history of the fishes of the Upper Colorado River Basin. Doctoral dissertation. Utah State University, Logan.
- Holden, P.B. 1977. Habitat requirements of juvenile Colorado squawfish. U.S. Fish and Wildlife Service, FWS/OBS-77/65, Fort Collins.

- Holden, P.B. 1979. Ecology of riverine fishes in regulated stream systems with emphasis on the Colorado river. Pages 57-73 *in* J.V. Ward and J.A. Stanford, editors. The ecology of regulated systems. Plenum Press, New York.
- Holden, P.B., P.D. Abate, and J.B. Ruppert. 1998. Razorback sucker studies on Lake Mead, Nevada. BIO/WEST, Inc., PN 578-2, for Department of Resources, Southern Nevada Water Authority, 1997-1998 Annual Report, Las Vegas.
- Holden, P.B., and L.W. Crist. 1981. Documentation of changes in the macroinvertebrate and fish populations in the Green River due to inlet modification of Flaming Gorge dam. BIO/WEST, Inc., Contract No. 0-07-40-S1357, PN 16, for U.S. Fish and Wildlife Service, Salt Lake City.
- Holden, P.B., and W. Masslich. 1997. San Juan River Recovery Implementation Program Summary Report 1991-1997. BIO/WEST, Inc., PN 602, for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Final Report, Albuquerque, New Mexico.
- Holden, P.B., and D.A. Selby. 1978. A study to determine the spawning requirements of Colorado squawfish. BIO/WEST, Inc., PN 17, for U.S. Fish and Wildlife Service, Fort Collins, Colorado.
- Holden, P.B., and C.B. Stalnaker. 1975a. Distribution and abundance of mainstream fishes of the middle and Upper Colorado River basins, 1967-73. Transactions American Fisheries Society 104:217-231.
- Holden, P.B., and C.B. Stalnaker 1975b. Distribution of fishes in the Dolores and Yampa River systems of the Upper Colorado Basin. Southwestern Naturalist 19:403-412.
- Holden, P.B., and E.J. Wick. 1982. Life history and prospects for recovery of Colorado squawfish. Pages 98-108 *in* W.H. Miller, H.M. Tyus, C.A. Carlson, editors. Fishes of the Upper Colorado River system: Present and future. Western Division, American Fisheries Society, Bethesda, Maryland.
- Horn, M.J., P.C. Marsh, G. Mueller, and T. Burke. 1994. Predation by odonate nymphs on larval razorback sucker (*Xyrauchen texanus*) under laboratory conditions. Southwestern Naturalist 39:371-374.
- Hubbs, C.L. 1954. Establishment of a forage fish, the red shiner (*Notropis lutrensis*), in the lower Colorado River system. California Fish and Game 40:287-294.
- Hydrosphere. 1998. Hydrodata USGS Daily Values West 1, Volume 10.0. Hydrosphere Data Products, Boulder, Colorado.

- Hynes, H.B.N. 1970. The ecology of stream insects. Ann. Rev. Entomol. 15:25-42.
- Inslee, T.D. 1982. Spawning of razorback sucker. Pages 145-157 *in* W.H. Miller, J.J. Valentine, D.L. Archer, H.M. Tyus, R.A. Valdez, and L.R. Kaeding, editors. Part 3, Colorado River Fishery Project. U.S. Bureau of Reclamation for U.S. Fish and Wildlife Service, Final Report Contracted Studies, Salt Lake City.
- Irving, D.B., and C.A. Karp. 1995. Movement and habitat use of channel catfish and common carp in the Yampa River, Colorado, during the summer, fall, and winter of 1991 and 1992. U.S. Fish and Wildlife Service for Colorado River Fishery Project, Grand Junction, Colorado.
- Jacobi, G.Z., and M. Jacobi. 1982. Fish stomach content analysis. Pages 285-324 in W.H. Miller, J.J. Valentine, D.L. Archer, H.M. Tyus, R.A. Valdez, and L.R. Kaeding, editors. Part 3, Colorado River Fishery Project. U.S. Bureau of Reclamation for U.S. Fish and Wildlife Service, Final Report Contracted Studies, for U.S. Bureau of Reclamation, Salt Lake City.
- John, K.R. 1963. The effect of torrential rains on the reproductive cycle of *Rhinichthys osculus* in the Chiricahua Mountains, Arizona. Copeia 1967:286-291.
- John, K.R. 1964. Survival of fish in intermittent streams of the Chiricahua Mountains, Arizona. Ecology 41:112-119.
- Johnson, D.H. 1980. The comparison of usage and availability measurements for evaluating resource preference. Ecology 61:65-71.
- Johnson, E.J., M.G. Pardew, and M.M. Lyttle. 1993. Predator recognition and avoidance by larval razorback sucker and northern hog sucker. Transactions American Fisheries Society 122:1139-1145.
- Jordan, D.S. 1891. Report of explorations in Utah and Colorado during the summer of 1889, with an account of the fishes found in each of the river basins examined. Bulletin of the U.S. Fish Commissioner 9:1-40.
- Joseph, T.W., J.A. Sinning, R.J. Behnke, and P.B. Holden. 1977. An evaluation of the status, life history, and habitat requirements of endangered and threatened fishes of the Upper Colorado River system. U.S. Fish and Wildlife Service, FWS/OBS-77-62, Fort Collins, Colorado.
- Kaeding, L.R., B.D. Burdick, P.A. Schrader, and C.W. McAda. 1990. Temporal and spatial relations between the spawning of humpback chub and roundtail chub in the Upper Colorado River. Transactions American Fisheries Society 119:135-144.

- Karp, C.A., and H.M. Tyus. 1990. Humpback Chub (*Gila cypha*) in the Yampa and Green Rivers, Dinosaur National Monument, with observations on roundtail Chub (*Gila robusta*) and other sympatric fishes. Great Basin Naturalist 50:257-264.
- Kochsiek, K.A., and R.A. Tubb. 1967. Salinity tolerance of *Fundulus diaphanus*, *Culaea inconstans*, and *Pimephales promelas*. Proceedings. South Dakota Academy of Science 46:95-98.
- Kondolf, G.M., and P.R. Wilcock. 1996. The flushing flow problem: Defining and evaluating objectives. Water Resources Research 32:2589-2599.
- Koster, W.J. 1957. Guide to the fishes of New Mexico. University of New Mexico Press, Albuquerque.
- Lamarra, V.A., M.C. Lamarra, and J.G. Carter. 1985. Ecological investigation of a suspected spawning site of Colorado squawfish on the Yampa River, Utah. Great Basin Naturalist 45:127-140.
- Lanigan, S.H., and C.R. Berry, Jr. 1981. Distribution of fishes in the White River, Utah. Southwestern Naturalist 26:389-393.
- Laser, K.D., and K.D. Calander. 1971. Life history of red shiners, *Notropis lutrensis*, in the Skunk River, central Iowa. Iowa State Journal of Science 45:557-562.
- Lashmett, K. 1993. Fishery survey of the lower San Juan River and the upper Arm of Lake Powell (RMI 4.0 11.0), 1991/92 Annual Report. U.S. Bureau of Reclamation for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Lashmett, K. 1994. Fishery survey of the lower San Juan River and the upper Arm of Lake Powell (RMI 4.0 0.8), 1993 Annual Report. U.S. Bureau of Reclamation for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1993, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Lashmett, K. 1995. Fishery survey of the lower San Juan River and the upper Arm of Lake Powell (RMI 4.0 1.9), 1994 Annual Report. U.S. Bureau of Reclamation for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1994, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Lee, D.S., and J.R. Shute. 1980. *Pimephales promelas* Rafinesque fathead minnow. Page 341 *in* D.S. Lee, C.R. Gilbert, C.H. Hocutt, R.E. Jenkins, D.E. McAllister, J.R. Stauffer, Jr. Atlas of North American freshwater fishes. North Carolina State Museum of Natural History, Raleigh.

- Lentsch, L.D., R.T. Muth, P.D. Thompson, B.G. Hoskins, and T.A. Crowl. 1996. Options for selective control of nonnative fishes in the Upper Colorado River Basin. Utah Division of Wildlife Resources, Salt Lake City.
- Loudermilk, W.E. 1985. Aspects of razorback sucker (*Xyrauchen texanus, Abbott*) life history which help explain their decline. Proceedings of the Desert Fishes Council (1985) 13:67-72.
- Lowe, C.H., D.S. Hinds, and E.A. Halpern. 1967. Experimental catastrophic selection and tolerance to low oxygen concentration in native Arizona freshwater fishes. Ecology 48:1013-1017.
- Maddux, H.R., and W.G. Kepner. 1988. Spawning of bluehead sucker in Kanab Creek, Arizona (Pisces: *Catostomidae*). Southwestern Naturalist 33:364-365.
- Markus, H.C. 1934. Life history of the blackhead minnow (*Pimephales promelas*). Copeia 1934:116-122.
- Marsh, P.C. 1985. Effect of incubation temperature on survival of embryos of native Colorado River fishes. Southwestern Naturalist 30:129-140.
- Marsh, P.C., and J.E. Brooks. 1989. Predation by ictalurid catfishes as a deterrent to reestablishment of hatchery-reared razorback suckers. Southwestern Naturalist 34:188-195.
- Marsh, P.C., and D.R. Langhorst. 1988. Feeding and fate of wild larval razorback sucker. Environmental Biology of Fishes 21:59-67.
- Masslich, W., and P.B. Holden. 1996. Expanding distribution of Colorado squawfish in the San Juan River: A discussion paper. BIO/WEST Inc., for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Matthews, W.J. 1980. *Notropis lutrensis* (Baird and Girard), red shiner. Page 285 *in* D.S. Lee, C.R. Gilbert, C.H. Hocutt, R.E. Jenkins, D.E. McAllister, J.R. Stauffer, Jr. Atlas of North American freshwater fishes. North Carolina State Museum of Natural History, Raleigh.
- Matthews, W.J. 1986. Geographic variation in thermal tolerance of a widespread minnow, *Notropis lutrensis* of the North American mid-west. Journal of Fish Biology 28:407-417.
- Matthews, W.J., and L.G. Hill. 1977. Tolerance of red shiner, *Notropis lutrensis* (Cyprinidae) to environmental parameters. Southwestern Naturalist 22:89-98.
- Matthews, W.J., and L.G. Hill. 1979. Influence of physio-chemical factors on habitat selection by red shiners, *Notropis lutrensis*. Copeia 1979:70-81.

- Matthews, W. J., and L.G. Hill. 1980. Habitat partitioning in the fish community of a southwestern river. Southwestern Naturalist 25:51-66.
- McAda, C. 1977. Aspects of the life history of three catostomids native to the Upper Colorado River Basin. Master's thesis. Utah State University, Logan.
- McAda, C.W., and L.R. Kaeding. 1989. Relations between maximum-annual river discharge and the relative abundance of age-0 Colorado squawfish and other fishes in the Upper Colorado River. U.S. Fish and Wildlife Service, Grand Junction, Colorado.
- McAda, C.W., and L.R. Kaeding. 1991. Movements of adult Colorado squawfish during the spawning season in the Upper Colorado River. Transactions American Fisheries Society 120:339-345.
- McAda, C.W., and H.M. Tyus. 1984. Resource overlap of age-0 Colorado squawfish with other fish species in the Green River, fall 1980. Proceedings of the Bonneville Chapter of the American Fisheries Society 1984:44–54.
- McAda, C.W., and R.S. Wydoski. 1980. The razorback sucker, *Xyrauchen texanus*, in the Upper Colorado River Basin, 1974-76. U.S. Fish and Wildlife Service, Washington D.C.
- McBain & Trush, 1997. Trinity River maintenance flow study. For Fisheries Department, Hoopa Valley Tribe, Final Report, Hoopa, California.
- McCarraher, D.B., and R. Thomas. 1968. Some ecological observations on the fathead minnow, *Pimephales promelas*, in the alkaline waters of Nebraska. Transactions American Fisheries Society 97:52.55.
- McCarthy, M.S., and W.L. Minckley. 1987. Age estimation for razorback sucker (Pisces: *Catostomidae*) from Lake Mohave, Arizona and Nevada. Journal of the Arizona-Nevada Academy of Science 21:87-97.
- McMillan, V. 1972. Mating of the fathead. Natural History 81:73-78.
- McNatt, R.M. and D.L. Skates. 1985. Fishery investigation of the Yampa and Green rivers, Dinosaur National Monument, Colorado and Utah, 1981. Pages 91-100 *in* E.P. Pister, editor. Proceedings of the Desert Fishes Council, Volume13-15-A, Bishop, California.
- Miller, R.R. 1952. Bait fishes of the lower Colorado River from Lake Mead, Nevada, to Yuma, Arizona, with a key for their identification. California Fish and Game 38:7-42.

- Miller, R.R. 1959. Origin and affinities of the freshwater fish fauna of western North America. Pages 187-222 *in* C.L. Hubbs, editor. Zoogeography. American Association for the Advancement of Science, Publication 51, Washington, D.C.
- Miller, W.J. 1994. Ichthyofaunal surveys on tributaries of the San Juan River. W.J. Miller and Associates for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1993, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Miller, W.J. 1995. San Juan River Colorado squawfish habitat suitability curves. W.J. Miller and Associates for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Miller, W.J., A.L. Hobbes, and D.L. Propst. 1993. Ichthyofaunal surveys of the Animas, La Plata, Florida, Los Pinos, and San Juan rivers, New Mexico and Colorado, August and September, 1992 Annual Report. W.J. Miller and Associates and Endangered Species Program, New Mexico Department of Fish and Game for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Miller, W.J., and D.E. Rees. 1997. Colorado squawfish habitat use and movement during summer low flow in the Yampa River upstream of Cross Mountain Canyon. Miller Ecological Consultants, Inc. for Colorado River Water Conservation District, Final Report, Glenwood Springs.
- Minckley, W.L. 1959. Fishes of Big Blue River Basin, Kansas. University of Kansas. Publications. Museum of Natural History 11:401-442.
- Minckley, W.L. 1973. Fishes of Arizona. Arizona Game and Fish Department, Phoenix.
- Minckley, W.L. 1983. Status of the razorback sucker, *Xyrauchen texanus* (Abbott), in the Lower Colorado River Basin. Southwestern Naturalist 28:165-187.
- Minckley, W.L., and J.E. Deacon. 1968. Southwestern fishes and the enigma of endangered species. Science 159:1424-1432.
- Minckley, W.L., and E.S. Gustafson. 1982. Early development of the razorback sucker, *Xyrauchen texanus* (Abbott). Great Basin Naturalist 42:553-561.
- Minckley, W.L., P.C. Marsh, J.E. Brooks, J.E. Johnson, and B.L. Jensen. 1991. Management toward recovery of the razorback sucker. Pages 303-357 *in* W.L. Minckley and J.E. Deacon, editors. Battle against extinction. University of Arizona Press, Tucson.

- Minckley, W.L., and G.K. Meefe. 1987. Differential selection by flooding in stream fish communities of the arid American Southwest. Pages 93-104 *in* W.J. Matthews and D.C. Heins, editors. Community and evolutionary ecology of North American stream fishes. University of Oklahoma Press, Norman.
- Miser, H.D. 1924. The San Juan Canyon, Southeastern Utah, a geographic and hydrographic reconnaissance. United States Geological Survey, Report #W538, Washington D.C.
- Modde, T. 1996. Juvenile razorback sucker (*Xyrauchen texanus*) in a managed wetland adjacent to the Green River. Great Basin Naturalist 56:375-376.
- Modde, T., K.P. Burnham, and E.J. Wick. 1996. Population status of the razorback sucker in the middle Green River (U.S.A.). Conservation Biology 10:110-119.
- Modde, T., and D.B. Irving. 1998. Use of multiple spawning sites and seasonal movement by razorback sucker in the middle Green River, Utah. North American Journal of Fisheries Management 18:318-326.
- Moyle, P.B. 1976. Inland fishes of California. University of California Press, Berkeley.
- Mueller, G. 1989. Observations of spawning razorback sucker (*Xyrauchen texanus*) utilizing riverine habitat in the lower Colorado River, Arizona-Nevada. Southwestern Naturalist 34:147-149.
- Muth, R.T., G.B. Haines, S.M. Meismer, E.J. Wick, T.E. Chart, D.E. Snyder, J.M. Bundy, and K.R. Bestgen. 1997. Larvae of endangered razorback sucker in the Green River, Utah and Colorado, 1992-1996: Documentation of annual reproduction and aspects of early life history. Recovery Implementation Program for the Endangered Fish Species in the Upper Colorado River Basin, U.S. Fish and Wildlife Service, Draft Final Report, Denver.
- Muth, R.T., C.M. Haynes, and C.A. Carlson. 1985. Culture of Roundtail Chub, *Gila robusta* (Cyprinidae), through the larval period. Southwestern Naturalist 30:152-154.
- Muth, R.T., and T.P. Nesler. 1993. Association among flow and temperature regimes and spawning periods and abundance of young of selected fishes, Lower Yampa River, Colorado, 1980-1984. Colorado Division of Wildlife, Final Report, Fort Collins.
- Nesler, T.P. 1986. Aquatic nongame research 1985-86: Squawfish-humpback studies. Colorado Division of Wildlife, Annual Job Progress Report, Project 02-01-035, Fort Collins.
- Nesler, T.P. 1995. Interactions between endangered fishes and introduced game fishes in the Yampa River, Colorado, 1987-1991. Colorado Division of Wildlife, Final Report, Fort Collins.

- Nesler, T.P., R.T. Muth, and A.F. Wasowicz. 1988. Evidence of baseline flow spikes as spawning cues for Colorado Squawfish in the Yampa River, Colorado. American Fisheries Society Symposium 5:68-79.
- O'Brien, J.S. 1983. Hydraulic and sediment transport investigation, Yampa River, Dinosaur National Monument. National Park Service Water Resource Laboratory, Civil Engineering Department, Colorado State University, Fort Collins.
- Odell, S. 1995. Polynuclear aromatic hydrocarbon study: 1994 annual report of data collection activities concerning suspected contributions of polynuclear aromatic hydrocarbons by oil and gas leasing on public lands in the San Juan Basin, New Mexico. Bureau of Land Management for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Annual Research Report, Fiscal Year 1994, Albuquerque, New Mexico.
- Odell, S. 1997. Polynuclear aromatic hydrocarbon study: 1996 annual report of data collection activities concerning suspected contributions of polynuclear aromatic hydrocarbons by oil and gas leasing on public land in the San Juan Basin, New Mexico. Bureau of Land Management for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, 1996 Annual Report, Albuquerque, New Mexico.
- Olson, H.F. 1962. Rehabilitation of the San Juan River. New Mexico Department of Game and Fish, Federal Aid Project F-19-D4, Job No. C-16-4. Santa Fe.
- Olson, H.F. 1967. A post-impoundment study of Navajo Reservoir and Navajo Reservoir tailwaters. New Mexico Department Game and Fish, Section 8 Project, Job No. A-3(a) and A-3(b), Santa Fe.
- Osmundson, D.B., and L.R. Kaeding. 1989. Studies of Colorado squawfish and razorback sucker use of the 15-mile reach of the Upper Colorado River as part of conservation measures for the Green Mountain and Rudei Reservoir water sales. Colorado River Fishery Project, U.S. Fish and Wildlife Service, Grand Junction.
- Osmundson, D.B., and L.R. Kaeding. 1991. Recommendations for flows in the 15-mile reach of the Upper Colorado River during October-June for maintenance and enhancement of endangered fish populations in the Upper Colorado River. Colorado River Fishery Project, U.S. Fish and Wildlife Service, Final Report, Grand Junction.
- Osmundson, D.B., P. Nelson, K. Fenton, and D.W. Ryden. 1995. Relationships between flow and rare fish habitat in the 15-mile reach of the Upper Colorado River. Colorado River Fishery Project, U.S. Fish and Wildlife Service, Final Report, Grand Junction.

- Osmundson, D.B., M.E. Tucker, B.D. Burdick, W.R. Elmlad, and T.E Chart. 1997. Non-spawning movements of subadult and adult Colorado squawfish in the Upper Colorado River. Colorado River Fishery Project, U.S. Fish and Wildlife Service, Final Report, Grand Junction.
- Otis, K.J., and J.J. Weber. 1982. Movement of carp in the Lake Winnebago system determined by radio telemetry. Department of Natural Resources, Technical Bulletin 134, Madison, Wisconsin.
- Parker, G., P.C. Klingman, and D.B. McLean. 1982. Bedload size distribution in paved gravel-bed streams. Journal. Hydraulics Division. American Society of Civil Engineers 108:544-571.
- Pflieger, W.L. 1975. The fishes of Missouri. Missouri Department of Conservation, Jefferson City.
- Philander, G. 1989. El Nino and La Nina. American Scientist 77:451-459.
- Pimentel, R., R.V. Bulkley, and H.M. Tyus. 1985. Choking of the Colorado squawfish, *Ptychocheilus lucius* (Cyprinidae), on channel catfish, *Ictalurus punctatus* (Ictaluridae), as a cause of mortality. Southwestern Naturalist 30:154-158.
- Pitlick, J., and M.M. Van Steeter. 1998. Geomorphology and endangered fish habitats of the Upper Colorado River: 2. Linking sediment transport to habitat maintenance. Water Resources Research 34:303-316.
- Platania, S.P. 1990. Biological summary: San Juan River ichthyofaunal study, New Mexico-Utah, 1987 to 1989. Museum of Southwestern Biology, Department of Biology, University of New Mexico for U.S. Bureau of Reclamation, Salt Lake City.
- Platania, S.P. 1996. San Juan River larval fish passive drift-netting study. W.H. Miller, J.J. Valentine, D.L. Archer, H.M. Tyus, R.A. Valdez, and L.R. Kaeding, editors. Part 3, Colorado River Fishery Project. U.S. Bureau of Reclamation for U.S. Fish and Wildlife Service, Final Report Contracted Studies, Salt Lake City.
- Platania, S.P. 1997. San Juan River larval fish passive drift-netting study. Division of fishes, Museum of Southwestern Biology, Department of Biology, University of New Mexico for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Poff, N.L., J.D. Allan, M.B. Bain, J.R. Karr, K.L. Prestagaard, B.D. Richter, R.E. Sparks, and J.C. Stromberg. 1998. The natural flow regime: A paradigm for river conservation and restoration. Bioscience 47:769-784.

- Prather, E.E. 1957. Preliminary experiments of feeds for fathead minnows. Proceedings. Southeastern Association. Game and Fish Commissioners 11:249-253.
- Propst, D.L., and A.L. Hobbes. 1993. Ichthyological characterization of San Juan River secondary channels. New Mexico Department of Game and Fish for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, 1991-1992 Report, Albuquerque, New Mexico.
- Propst, D.L., and A.L. Hobbes. 1994. Ichthyological characterization of San Juan River secondary channels. New Mexico Department of Game and Fish for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, 1993 Annual Report, Albuquerque, New Mexico.
- Propst, D.L., and A.L. Hobbes. 1995. Ichthyological characterization of San Juan River secondary channels, 1994 Annual Report. New Mexico Department of Game and Fish for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1993, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Propst, D.L., and A.L. Hobbes. 1996. Ichthyological characterization of San Juan River secondary channels, 1995 Annual Report. New Mexico Department of Game and Fish for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1994, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Propst, D. L. and A. L. Hobbes. 1997. Ichthyological characterization of San Juan River secondary channels, 1996 Annual Report. New Mexico Department of Game and Fish for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Pucherelli, M.J., and R.C. Clark. 1990. San Juan River habitat mapping using remote sensing techniques. U.S. Bureau of Reclamation, AP-90-4-2, Denver.
- Pucherelli, M.J., R.C. Clark, and R.D. Williams. 1990. Mapping backwater habitat on the Green River as related to the operations of Flaming Gorge Dam, using remote sensing and GIS. U.S. Bureau of Reclamation, R-90-1, Denver.
- Quartarone, F. 1993. Historical accounts of Upper Colorado River Basin endangered fish. Colorado Division of Wildlife, Final Report, Denver.
- Richter, B.D., J.V. Baumgartner, D.P. Braun, and J. Powell. 1998. A spacial assessment of hydrologic alteration within a river network. Regulated Rivers: Research and Management 14(4):329-340.

- Robison, H.W., and T.M. Buchanan. 1988. Fishes of Arkansas. The University of Arkansas Press, Fayetteville.
- Ruppert, J.B., R.T. Muth, and T.P. Nesler. 1993. Predation on fish larvae by adult red shiner, Yampa and Green rivers, Colorado. Southwestern Naturalist 38:397-399.
- Ryden, D.W., and L.A. Ahlm. 1996. Observations on the distribution and movements of Colorado squawfish, Ptychocheilus lucius, in the San Juan River, New Mexico, Colorado, and Utah. Southwestern Naturalist 41:161-168.
- Ryden, D.W., and F.K. Pfeifer. 1995. Adult fish community monitoring on the San Juan River, 1994 Annual Progress Report. U.S. Fish and Wildlife Service for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1994, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Ryden, D.W., and F.K. Pfeifer. 1996a. Adult fish community monitoring on the San Juan River, 1995 Annual Progress Report. U.S. Fish and Wildlife Service for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1995, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Ryden, D.W., and F.K. Pfeifer. 1996b. Monitoring of experimentally stocked razorback sucker in the San Juan River, 1995 Annual Progress Report. U.S. Fish and Wildlife Service for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1995, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Saksena, V.P. 1962. The post-hatching stages of the red shiner, *Notropis lutrensis*. Copeia 1962:539-544.
- Schaugaard, C., W. Gustaveson, L. Lentsch, and P. Thompson. 1996. Ichthyological monitoring in the San Juan River inflow of Lake Powell, 1995. Utah Division of Wildlife Resources for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Schreiber, D.C., and W.L. Minckley. 1981. Feeding interrelationships of native fishes in a Sonoran Desert stream. Great Basin Naturalist 41:409-426.
- Scott, W.B., and E.J. Crossman. 1973. Freshwater fishes of Canada. Fisheries Research Board of Canada, Bulletin 184, Ottawa, Ontario.
- Seethaler, K. 1978. Life history and ecology of the Colorado squawfish (*Ptychocheilus lucius*) in the Upper Colorado River Basin. Master's thesis. Utah State University, Logan.

- Sigler, W.F., and R.R. Miller. 1963. Fishes of Utah. Utah State Department of Fish and Game, Salt Lake City.
- Sigler, W.F., and J.W. Sigler. 1987. Fishes of the Great Basin, a natural history. University of Nevada Press, Reno.
- Smith, G.R. 1959. Annotated check list of fishes of Glen Canyon. Pages 195-199 *in* C.E. Dibble, editor. Ecological studies of the flora and fauna in Glen Canyon. University of Utah Press, Anthropological Papers Number 40, Salt Lake City.
- Smith, R.J.F., and B.D. Murphy. 1974. Functional morphology of the dorsal pad in fathead minnows. Transactions American Fisheries Society 103:65-72.
- Snyder, D.E. 1981. Contributions to a guide to the Cypriniform fish larvae of the Upper Colorado River system in Colorado. U.S. Bureau of Land Management, Biology Series No. 3, Denver.
- Snyder, D.E., M.B. Mulhall-Snyder, and S.C. Douglas. 1977. Identification of golden shiner, *Notemigonus crysoleucas*, spotfin shiner, *Notropis spiloterus*, and fathead minnow, *Pimephales promelas*, larvae. Journal. Fisheries Research Board of Canada 34:1397-1409.
- Snyder, D.E., and R.T. Muth. 1990. Description and identification of razorback, flannelmouth, white, Utah, bluehead, and mountain sucker larvae and early juveniles. Colorado Division of Wildlife, Technical Publication No. 38, Denver.
- Stalnaker, C.B., B.L. Lamb, J. Henriksen, K. Bovee, and J. Bartholow. 1995. The instream flow incremental methodology: A primer for IFIM. National Biological Service, Biological Report 29, Fort Collins.
- Stanford, J.A. 1994. Instream flows to assist the recovery of endangered fishes of the Upper Colorado River Basin. U.S. Fish and Wildlife Service, Biological Report 24, Denver.
- Starrett, W.C. 1950. Food relationships of the minnows of the Des Moines River, Iowa. Ecology 31:216-233.
- Sublette, J.E., M.D. Hatch, and M. Sublette. 1990. The fishes of New Mexico. University of New Mexico Press, Albuquerque.
- Swanson, G.A., G.L. Krapu, L.C. Bartonek, J.R. Serie, and D.H. Johnson. 1974. Advantages in mathematically weighting waterfowl food habits data. Journal of Wildlife Management 38:302-307.

- Taba, S.S., J.R. Murphy, and H.H. Frost. 1965. Notes on the fishes of the Colorado River near Moab, Utah. Proceedings of the Utah Academy of Sciences, Arts, and Letters 42:280-283.
- Taber, C.A. 1969. The distribution and identification of larval fishes in the Buncombe Creek arm of Lake Texoma with observations on spawning habits and relative abundance. Doctoral dissertation. University of Oklahoma, Norman.
- Thompson, K.R. 1982. Characteristics of suspended sediment in the San Juan River near Bluff, Utah. United States Geological Survey, Water-Resources Investigations 82-4104, n.p.
- Toney, D.P. 1974. Observations on the propagation and rearing of two endangered fish species in a hatchery environment. Proceedings of the Western Association of State Game and Fish Commissions 54:252-259.
- Trammell, M.A., E.P. Bergersen, and P.J. Martinez. 1993. Evaluation of an introduction of Colorado squawfish in a main stem impoundment on the White River, Colorado. Southwestern Naturalist 38:362-369.
- Trammell, M.A., and T.E. Chart. 1998. Aspinall studies: Evaluation of Gunnison River flow manipulation upon larval production of Colorado squawfish populations in the Colorado River. Utah Division of Wildlife Resources for Recovery Implementation Program for the Endangered Fish Species in the Upper Colorado River Basin, Draft Final Report, U.S. Fish and Wildlife Service, Denver.
- Tyus, H.M. 1985. Homing behavior noted for Colorado squawfish. Copeia 1985:213-215.
- Tyus, H.M. 1987. Distribution, reproduction, and habitat use of the razorback sucker in the Green River, Utah, 1979-1986. Transactions American Fisheries Society 116:111-116.
- Tyus, H.M. 1990. Potamodromy and reproduction of Colorado squawfish in the Green River Basin, Colorado and Utah. Transactions American Fisheries Society 119:1035-1047.
- Tyus, H.M. 1991a. Ecology and management of Colorado squawfish. Pages 379-402 *in* W.L. Minckley, and J.E. Deacon, editors. Battle against extinction. University of Arizona Press, Tucson.
- Tyus, H.M. 1991b. Movements and habitat use of young Colorado squawfish in the Green River, Utah. Journal Freshwater Ecology 6:43.
- Tyus, H.M., B.D. Burdick, R.A. Valdez, C.M. Haynes, T.A. Lytle, and C.R. Berry. 1982. Fishes of the Upper Colorado River Basin: Distribution, abundance, and status. Pages 12-70 *in* W.H. Miller, H.M. Tyus, and C.A. Carlson, editors. Fishes of the Upper Colorado River

- system: Present and future. Western Division, American Fisheries Society, Bethseda, Maryland.
- Tyus, H.M., and G.B. Haines. 1991. Distribution, habitat use, and growth of age-0 Colorado squawfish in the Green River Basin, Colorado and Utah. Transactions American Fisheries Society 120:79-89.
- Tyus, H.M., and C.A. Karp. 1989. Habitat use and streamflow needs of rare and endangered fishes, Yampa River, Colorado. U.S. Fish and Wildlife Service, Biological Report 89(14), Denver.
- Tyus, H.M., and C.A. Karp. 1990. Spawning and movements of razorback sucker, *Xyrauchen texanus*, in the Green River Basin of Colorado and Utah. Southwestern Naturalist 35:427-433.
- Tyus, H.M., and N.J. Nikirk. 1990. Abundance, growth, and diet of channel catfish, *Ictalurus punctatus*, in the Green and Yampa Rivers, Colorado and Utah. Southwestern Naturalist 35:188-198.
- Tyus, H.M., and J.F. Saunders. 1996. Nonnative fishes in the Upper Colorado River Basin and a strategic plan for their control. U.S. Fish and Wildlife Service, Final Report, Report No. 14-48-0006-95-923, Denver.
- UDWR (Utah Division of Wildlife Resources). 1998. Nursery habitat survey of the San Juan River, New Mexico and Utah, 1994-1997. UDWR for San Juan River Basin Recovery Implementation Program, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- USFWS (U.S. Fish and Wildlife Service). 1996. Final biological opinion for the Animas-La Plata Project, Colorado and New Mexico. Region 6, U.S. Fish and Wildlife Service, Denver.
- USFWS (U.S. Fish and Wildlife Service). 1997. Razorback sucker (*Xyrauchen texanus*) draft recovery plan. U.S. Fish and Wildlife Service, Denver.
- USGS (United States Geological Survey). 1957. Preliminary geologic map of western San Juan Basin, San Juan and McKinley Counties, New Mexico (map). USGS, Denver. Map OM 190.
- Valdez, R.A. 1990. The endangered fish of cataract canyon. BIO/WEST, Inc. Final Report, Report No. 134-3, Logan, Utah.

- Valdez, R.A., P. Mangan, R. Smith, and B. Nilson. 1982. Report 2: Upper Colorado River Investigation (Rifle, Colorado to Lake Powell, Utah). Pages 100-279 *in* W.H. Miller, J.J. Valentine, D.L. Archer, H.M. Tyus, R.A. Valdez, and L. Kaeding, editors. Colorado River Fishery Project: Part 2: Field Investigations, U.S. Fish and Wildlife Service and Bureau of Reclamation, Salt Lake City.
- Van Eimeren, P.A. 1988. Comparative food habits of Gila trout and speckled dace in a southwestern headwater stream. Master's thesis. New Mexico State University, Las Cruces.
- Vanicek, C.D. 1967. Ecological studies of native Green River fishes below Flaming Gorge Dam. Doctoral dissertation. Utah State University, Logan.
- Vanicek, C.D., and R.H. Kramer. 1969. Life history of the Colorado squawfish, *Ptychocheilus luscius*, and the Colorado River chub, *Gila robusta*, in the Green River in Dinosaur National Monument, 1964-1966. Transactions American Fisheries Society 98:193-208.
- Vanicek, C.D., R.H. Kramer, and D.R. Franklin. 1970. Distribution of Green River fishes in Utah and Colorado following closure of Flaming Gorge Dam. Southwestern Naturalist 14:297-315.
- VTN Consolidated, Inc., and the Museum of Northern Arizona. 1978. Fish, Wildlife and Habitat Assessment: San Juan River, New Mexico and Utah. Gallup-Navajo Indian Water Supply Project. For Bureau of Reclamation. 215 p.
- Wallace, R.L. 1980. *Rhinichthys osculus* (Girard) speckled dace. Page 356 in D.S. Lee, C.R. Gilbert, C.H. Hocutt, R.E. Jenkins, D.E. McAllister, and J.R. Stauffer, Jr. Atlas of North American freshwater fishes. North Carolina State Museum of Natural History, Raleigh.
- Williams, C.D., and J.F. Williams. 1982. Summer food habits of fishes from two springs in east-central Nevada. Southwestern Naturalist 27:437-445.
- Wilson, R.M., J.D. Lusk, S. Bristol, B. Waddell, and C. Wiens. 1995. Environmental contaminants in biota from the San Juan River and selected tributaries in Colorado, New Mexico, and Utah. Regions 2 and 6, U.S. Fish and Wildlife Service for San Juan River Basin Recovery Implementation Program, Annual Research Report, Fiscal Year 1994, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Winn, H.E., and R.R. Miller. 1954. Native postlarval fishes of the lower Colorado River Basin, with a key to their identification. California Fish and Game 40:273-285.
- Woodling, J. 1985. Colorado's little fish: A guide to the minnows and other lesser known fishes in the state of Colorado. Colorado Division of Wildlife, Denver.

- Wydoski, R.S., and R.R Whitney. 1979. Inland fishes of Washington. University of Washington Press, Seattle.
- Zar, J.H. 1984. Bio-statistical analysis. Second edition. Prentice-Hall, Englewood Cliffs, New Jersey.